UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,952	03/03/2000	David Critz	04899-035001	7655

959 7590 04/19/2005

LAHIVE & COCKFIELD, LLP.
28 STATE STREET
BOSTON, MA 02109

EXAMINER	
THANGAVELU, KANDASAMY	
ART UNIT	**PAPER NUMBER**
2123	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)	
	09/517,952	CRITZ ET AL.	
	Examiner	Art Unit	
	Kandasamy Thangavelu	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-20,22-36 and 38-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-20,22-36 and 38-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

f1

DETAILED ACTION

1. This communication is in response to the Applicants' Amendment dated January 7, 2005. Claims 1-2, 4-20, 22-36 and 38-53 of the application are pending. This office action is made final.

Drawings

2. The drawings submitted on June 9, 2004 are accepted.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

4. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, 4-9, 11-20, 22-27, 29-36, 38-43 and 45-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Young et al.** (ACM, 2000) in view of **Weitz** (IEEE, 1998), and further in view of **Lannert et al.** (U.S. Patent 6,101,489).

5.1 **Young et al.** teaches a knowledge based electronic information and documentation system. Specifically, as per Claim 35, **Young et al.** teaches a system comprising a technical computing environment and a report generator executing within an operating environment provided by a computer (Page 280, CL1, Para 1; Page 280, CL2, Para 1 and 2); and

the reporting components being configurable to define one or more operations to perform within a technical computing environment (Page 280, CL1, Para 1, L1-3 and 13-19; Page 281, CL1, Para 3, L2 to Para 4, L7; Page 281, CL1, Para 7, L1-7).

Young et al. teaches a system comprising a technical computing environment and a report generator executing within an operating environment provided by a computer (Page 280, CL1, Para 1; Page 280, CL2, Para 1 and 2), as that allows reports to be generated from the from instances created by the run of the system (Page 280, CL1, Para 1, L15-16). **Young et al.** does not expressly teach a system comprising a technical computing environment, a model simulator and a report generator executing within an operating environment provided by a computer. **Lannert et al.** teaches a system comprising a technical computing environment and a model simulator executing within an operating environment provided by a computer (CL11, L24-38;

Fig. 2; Fig. 47; CL93, L47-64), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the system of **Young et al.** including a system comprising a technical computing environment and a report generator executing within an operating environment provided by a computer with the system of **Lannert et al.** that included a technical computing environment and a model simulator executing within an operating environment provided by a computer. The artisan would have been motivated because that would allow reports to be generated from the from instances created by the run of the simulation while allowing the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation.

Young et al. teaches the report generator defines a set of reporting components that can be assembled to form a report (Page 280, CL1, Para 1, L11-16). **Young et al.** does not expressly teach the report generator defining a set of reporting components that can be assembled to form a report template. **Weitz** teaches the report generator defining a set of reporting components that can be assembled to form a report template (Page 3, Col 2, Para 4; Page 4, Col 1, Section 4.2.1), as that facilitates selecting document instances or parts of them and defining document processing operations using the logical tree structure of the document (Page 3, Col 2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Weitz** that included the report generator defining a set of reporting components that can be assembled to form a report template. The artisan would have been motivated because that would facilitate selecting document instances or

parts of them and defining document processing operations using the logical tree structure of the document.

Young et al. teaches at least one of the reporting components configured to define an operation to bi-directionally communicate with a model building technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel; the notebooks have document writing capabilities; the author has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3). **Young et al.** does not expressly teach at least one of the reporting components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation. **Lannert et al.** teaches user interface components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the

parameters passed into it; when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the system of **Young et al.** including at least one of the reporting components configured to define an operation to bi-directionally communicate with a technical computing environment with the system of **Lannert et al.** that included interface components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation. The artisan would have been motivated because that would allow automatic document production and producing different kinds of documents from the same information; and reports to be generated from the from instances created by the run of the simulation while allowing the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation.

Young et al. teaches the report generator includes a generation engine to generate a report from the processing of the reporting components to initiate the reporting components to perform the one or more operations configured by the reporting components (Page 280, CL1, Para 1, L13-19; Page 280, CL2, Para 1, L5-12; Page 281, CL1, Para 7, L1-7). **Young et al.** does not expressly teach the report generator includes a generation engine to generate a report from the processing of the reporting components of the report template. **Weitz** teaches the report generator includes a generation engine to generate a report from the processing of the reporting components of the report template (Page 3, Col 2, Para 4; Page 4, Col 1, Section 4.2.1), as that facilitates selecting document instances or parts of them and defining document processing

operations using the logical tree structure of the document (Page 3, Col 2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Weitz** that included the report generator including a generation engine to generate a report from the processing of the reporting components of the report template. The artisan would have been motivated because that would facilitate selecting document instances or parts of them and defining document processing operations using the logical tree structure of the document.

5.2 As per Claim 36, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** also teaches that the set of reporting components includes defining flow control components that control an order for processing the reporting component (Page 282, CL1, Para 7 to Page 282, CL2, Para 3; Page 284, CL1, Para 6 to CL2, Para 2).

5.3 As per Claim 38, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** teaches at least one of the reporting components configured to define an operation to bi-directionally communicate with a model building technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel (It is inherent that the communication is provided by passing command, parameters and initial conditions to the kernel); the notebooks have document writing capabilities; the author has control over how the text is evaluated by the

kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3). **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3); and generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1,

L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model. The artisan would have been motivated because that would allow the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation and generating reports from the instances created by a run of the simulation system and automatic document production and producing different kinds of documents from the same information.

5.4 As per Claim 39, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to reconfigure the model by adding or removing a functional block from the model. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to reconfigure the model by adding or removing a functional block from the model (CL11, L25-27; CL26, L3-10; CL89, L54-57), as that allows the user to modify the designs and interact with the simulation thus enabling rigorous testing prior to application construction (CL26, L11-23) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the

system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to reconfigure the model by adding or removing a functional block from the model. The artisan would have been motivated because that would allow the user to modify the designs and interact with the simulation thus enabling rigorous testing prior to application construction and generating reports from the instances created by a run of the simulation system.

5.5 As per Claim 40, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to extract data from a calculation workspace of the computing environment. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to extract data from a calculation workspace of the computing environment (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend

graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL 11, L25-27) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to extract data from a calculation workspace of the computing environment. The artisan would have been motivated because that would allow the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation and generating reports from the instances created by a run of the simulation system.

5.6 As per Claim 41, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to evaluate expressions defined within the computing environment. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to evaluate expressions defined within the computing environment (CL11, L29-33 and L56-58; CL94, L22-27), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1,

Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to requesting data from the model simulator. The artisan would have been motivated because that would allow the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation and generating reports from the instances created by a run of the simulation system.

5.7 As per Claim 42, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to requesting data from the model simulator. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to requesting data from the model simulator (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be

used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (Col 11, L25-27) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to extract data from a calculation workspace of the computing environment. The artisan would have been motivated because that would allow the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation and generating reports from the instances created by a run of the simulation system.

5.8 As per Claim 43, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to request data from a graphics package. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to request data from a graphics package (CL94, L12-25), as that allows making calculations on the time interval data and show trend graphs (C94, L23-2 and L38-39) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to

modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to request data from a graphics package. The artisan would have been motivated because that would allow making calculations on the time interval data and show trend graphs and generating reports from the instances created by a run of the simulation system.

5.9 As per Claim 45, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the simulation of the model to advance a current state of the simulation one or more time steps. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the simulation of the model to advance a current state of the simulation one or more time steps (Fig. 50; CL94, L23-25; CL94, L38-44; CL94, L54-60), as that allows making calculations on the time interval data and show trend graphs (C94, L23-2 and L38-39) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to the simulation of the model to advance a current state of the simulation one or more time steps. The artisan would have been motivated because that would allow making calculations on the time

interval data and show trend graphs and generating reports from the instances created by a run of the simulation system.

5.10 As per Claim 46, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** also teaches that the generation engine generates the report in an intermediate representation, and wherein the report generator further comprises a transformation engine to transform the intermediate representation into an electronic document according to a user-selected format (Page 280, CL1, Para 1, L10-19; Page 281, CL1, Para 4).

5.11 As per Claim 47, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the intermediate representation of the report is in one of the following formats: Extensible Markup Language or Standard Generalized Markup Language. **Weitz** teaches that the intermediate representation of the report is in one of the following formats: Extensible Markup Language or Standard Generalized Markup Language (Page 2, CL1, Para 2 and Para 3; Page 2, CL2, Para 4), as that facilitates defining the logical structure of the document using a tree structure thus facilitating efficient automated document retrieval and processing (Page 2, CL1, Para 2; Page 2, CL2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Weitz** that included the intermediate representation of the report being in one of the following formats: Extensible Markup Language or Standard Generalized Markup Language. The artisan would have been motivated because that would facilitate

defining the logical structure of the document using a tree structure thus facilitating efficient automated document retrieval and processing.

5.12 As per Claim 48, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine formats the report as a function of a state of the simulation. **Lannert et al.** teaches that the generation engine formats the report as a function of a state of the simulation (CL93, L53-64; CL94, L38-39 and L42-44), as that allows updating the reports as the simulation is executed (CL93, L63-64) and facilitates restarting the simulation playing back in time (CL94, L62-63). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine formatting the report as a function of a state of the simulation. The artisan would have been motivated because that would allow updating the reports as the simulation was executed and facilitate restarting the simulation playing back in time.

5.13 As per Claim 49, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing instructions to the simulation of the model to modify one of an operational parameter and initial condition of the simulation of the model. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing instructions to the simulation of the model to modify one of an operational parameter and initial condition of the simulation of the

model (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing instructions to the simulation of the model to modify one of an operational parameter and initial condition of the simulation of the model. The artisan would have been motivated because that would allow the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation and generating reports from the instances created by a run of the simulation system.

5.14 As per Claim 50, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** does not expressly teach a user interface by which a designer can hierarchically arrange the reporting elements to form the report template. **Weitz** teaches a user interface by

which a designer can hierarchically arrange the reporting elements to form the report template (Page 2, CL2, Para 4; Page3, CL2, Para 4), as that facilitates defining the logical structure of the document using a tree structure thus facilitating efficient automated document retrieval and processing (Page 2, CL1, Para 2; Page 2, CL2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Weitz** that included a user interface by which a designer could hierarchically arrange the reporting elements to form the report template. The artisan would have been motivated because that would facilitate defining the logical structure of the document using a tree structure thus facilitating efficient automated document retrieval and processing.

5.15 As per Claim 51, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** also teaches that the report generator processes each reporting component according to behavior defined by an ancestor reporting component within a hierarchy of reporting components (Page 280, CL2, Para 2, L4-9; Page 282, CL1, Para 7 to CL2, Para 1).

5.16 As per Claim 52, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** also teaches that the report generator defines the reporting components using classes, attributes, rules of inheritance and instantiation (Page 280, Col 2, Para 2). **Young et al.** does not expressly teach that the report generator defines the reporting components according to an object-oriented report programming language. **Lannert et al.** teaches that the report generator defines the reporting components according to an object-oriented report programming language (Col 5, Lines 24-27; Col 5, Lines 45-46; Col 9, Line 58 to Col 10, Line 11), as that

allows significant reductions in the design and development effort of the software involved in automatic generation of the documents (Col 9, Lines 56-58). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Lannert et al.** that included the report generator defining the reporting components according to an object-oriented report programming language. The artisan would have been motivated because that would allow significant reductions in the design and development effort of the software involved in automatic generation of the documents.

5.17 As per Claims 1-2, 4-9, 11-17 and 19-20, 22-27, 29-33, these are rejected based on the same reasoning as Claims 35-36, 38-43, 45-48 and 50-52, supra. Claims 1-2, 4-9, 11-17 and 19-20, 22-27, 29-33 are method and computer program implementing the methods reciting the same limitations as Claims 35-36, 38-43, 45-48 and 50-52, as taught throughout by **Young et al.**, **Weitz** and **Lannert et al.**.

5.18 As per Claim 18, **Young et al.**, **Weitz** and **Lannert et al.** teach the method of Claim 1. **Young et al.** does not expressly teach that the report template refers to a second report template, and further wherein the reporting components are processed as a function of results from processing the second report template. **Weitz** teaches that the report template refers to a second report template, and further wherein the reporting components are processed as a function of results from processing the second report template (Page 2, CL2, Para 4; Page 3, CL2, Para 4), as that facilitates utilization of the logical organization of the documents as tree structure for efficient automated document retrieval and processing (Page 2, CL1, Para 2 and Page 2, CL2,

Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the method of **Young et al.** with the method of **Weitz** that included the report template referring to a second report template, and the reporting components being processed as a function of results from processing the second report template. The artisan would have been motivated because that would facilitate utilization of the logical organization of the documents as tree structure for efficient automated document retrieval and processing.

5.19 As per Claim 34, **Young et al., Weitz** and **Lannert et al.** teach the computer program product of Claim 19. **Young et al.** does not expressly teach that the report generation computer program provides that the report template can reference one or more other report templates in sequence, and further wherein the results of processing one of the report templates is a function of the simulation results from processing report templates earlier in the sequence. **Weitz** teaches that the report generation computer program provides that the report template can reference one or more other report templates in sequence, and further wherein the results of processing one of the report templates is a function of the simulation results from processing report templates earlier in the sequence (Page 2, CL2, Para 4; Page 3, CL2, Para 4), as that facilitates utilization of the logical organization of the documents as tree structure for efficient automated document retrieval and processing (Page 2, CL1, Para 2 and Page 2, CL2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the computer program product of **Young et al.** with the computer program product of **Weitz** that included the report generation computer program providing that the report template could reference one or more other report templates in sequence, and further wherein the results of

processing one of the report templates was a function of the simulation results from processing report templates earlier in the sequence. The artisan would have been motivated because that would facilitate utilization of the logical organization of the documents as tree structure for efficient automated document retrieval and processing.

5.20 As per Claim 53, **Young et al.** teaches a method for generating a report (Page 280, CL1, Para 1,L1-10); comprising:

the reporting components being configurable to define one or more operations to perform within a technical computing environment (Page 280, CL1, Para 1, L1-3 and 13-19; Page 281, CL1, Para 3, L2 to Para 4, L7; Page 281, CL1, Para 7, L1-7).

Young et al. teaches defining a set of reporting components that can be assembled to form a report (Page 280, CL1, Para 1, L11-16). **Young et al.** does not expressly teach defining a set of reporting components that can be assembled to form a report template. **Weitz** teaches defining a set of reporting components that can be assembled to form a report template (Page 3, Col 2, Para 4; Page 4, Col 1, Section 4.2.1), as that facilitates selecting document instances or parts of them and defining document processing operations using the logical tree structure of the document (Page 3, Col 2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the method of **Young et al.** with the method of **Weitz** that included defining a set of reporting components that could be assembled to form a report template. The artisan would have been motivated because that would facilitate selecting

document instances or parts of them and defining document processing operations using the logical tree structure of the document.

Young et al. generating a report from processing the reporting components of the report to initiate the reporting components to perform the one or more operations configured by the reporting components (Page 280, CL1, Para 1, L13-19; Page 280, CL2, Para 1, L5-12; Page 281, CL1, Para 7, L1-7). **Young et al.** does not expressly teach generating a report from processing the reporting components of the report template. **Weitz** teaches generating a report from processing the reporting components of the report template (Page 3, Col 2, Para 4; Page 4, Col 1, Section 4.2.1), as that facilitates selecting document instances or parts of them and defining document processing operations using the logical tree structure of the document (Page 3, Col 2, Para 4). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the method of **Young et al.** with the method of **Weitz** that included generating a report from processing the reporting components of the report template. The artisan would have been motivated because that would facilitate selecting document instances or parts of them and defining document processing operations using the logical tree structure of the document.

Young et al. teaches initiating, during generating the report, at least one reporting component to bi-directionally communicate with a technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel; the notebooks have document writing capabilities; the author

has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3).). **Young et al.** does not expressly teach initiating, during generating the report, at least one reporting component to bi-directionally communicate with the simulation of the model during the execution of the simulation. **Lannert et al.** teaches initiating, during user training, at least one user interface component to bi-directionally communicate with the simulation of the model during the execution of the simulation (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it; when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the method of **Young et al.** including initiating, during generating the report, at least one reporting component to bi-directionally communicate with a technical computing environment with the method of **Lannert et al.** that included initiating, during user training, at least one user interface component to bi-directionally communicate with the simulation of the model during the

execution of the simulation. The artisan would have been motivated because that would allow automatic document production and producing different kinds of documents from the same information; and reports to be generated from the from instances created by the run of the simulation while allowing the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation.

6. Claims 10, 28 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al (ACM, 2000) in view of **Weitz** (IEEE, 1998), and further in view of **Lannert et al.** (U.S. Patent 6,101,489) and **Skidmore et al.** (IEEE, 1998).

6.1 As per Claim 44, **Young et al., Weitz** and **Lannert et al.** teach the system of Claim 35. **Young et al.** teaches at least one of the reporting components configured to define an operation to bi-directionally communicate with a model building technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel (It is inherent that the communication is provided by passing command, parameters and initial conditions to the kernel); the notebooks have document writing capabilities; the author has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the

system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3).

Lannert et al. teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3); and generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16).

Young et al. does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to simulate the model. **Skidmore et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to simulate the model (Page 6, Para 3), as that allows the user to control execution and recording of the computations in

the simulation model (Page 5, Para 5) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the system of **Young et al.** with the system of **Skidmore et al.** that included the generation engine initiating one of the reporting components configured to perform the operation of issuing commands to simulate the model. The artisan would have been motivated because that would allow the user to control execution and recording of the computations in the simulation model and generating reports from the instances created by a run of the simulation system.

6.2 As per Claims 10 and 28, it is rejected based on the same reasoning as Claim 44, supra. Claims 10 and 28 are method and computer program claims reciting the same limitations as Claim 10, as taught throughout by **Young et al., Weitz, Lannert et al.** and **Skidmore et al.**

Response to Amendments

7. Applicants' arguments filed on January 7, 2005 have been fully considered. Applicants' arguments with respect to claim rejections under 35 USC 103 (a) are not persuasive.

8. As per the Applicants' arguments, the Applicants' attention is requested to the corresponding claim rejections. In addition, the following explanation is provided to further explain the examiner's position.

8.1 As per the Applicants' argument that "Young describes a run of the system as transforming an input specification into numerical code; the resulting numerical code is referred to as an instance created by a run of the system. This transformation, or instance, is not a simulation of a simulation model but a process of taking an input specification of a problem and converting it into an executable numerical program representing the problem; reports generated by the transformation process document the transformations to help a user understand how SciNapse transformed the input specification", the examiner agrees with the Applicants' narration of the relevant sections from Young.

Young does not expressly state the use of simulation to generate the reports. However, **Young et al.** teaches that the reporting components communicate with a modeling and technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel; the notebooks have document writing capabilities; the author has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the

system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3).

8.2 As per the Applicants' argument that "Weitz does not discuss the generation of a report during a simulation and/or prior to completion of a simulation; it also does not discuss the bi-directional communication between the report generation process and a simulation sufficient to dynamically control aspects of the simulation for the purpose of the report", the examiner has shown that **Young et al.** in view of **Lannert et al.** teach the generation of a report during a simulation and/or prior to completion of a simulation; they also teach the bi-directional communication between the report generation process and a simulation sufficient to dynamically control aspects of the simulation for the purpose of the report.

Young et al. teaches a system comprising a technical computing environment and a report generator executing within an operating environment provided by a computer (Page 280, CL1, Para 1; Page 280, CL2, Para 1 and 2), as that allows reports to be generated from the from instances created by the run of the system (Page 280, CL1, Para 1, L15-16). **Young et al.** does not expressly teach a system comprising a technical computing environment, a model simulator and a report generator executing within an operating environment provided by a computer. **Lannert et al.** teaches a system comprising a technical computing environment and a model simulator executing within an operating environment provided by a computer (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). It would have

been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the system of **Young et al.** including a system comprising a technical computing environment and a report generator executing within an operating environment provided by a computer with the system of **Lannert et al.** that included a technical computing environment and a model simulator executing within an operating environment provided by a computer. The artisan would have been motivated because that would allow reports to be generated from the from instances created by the run of the simulation while allowing the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation.

Young et al. teaches at least one of the reporting components configured to define an operation to bi-directionally communicate with a model building technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel; the notebooks have document writing capabilities; the author has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3).
Lannert et al. teaches user interface components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving

outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it; when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to combine the system of **Young et al.** including at least one of the reporting components configured to define an operation to bi-directionally communicate with a technical computing environment with the system of **Lannert et al.** that included interface components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation. The artisan would have been motivated because that would allow automatic document production and producing different kinds of documents from the same information; and reports to be generated from the from instances created by the run of the simulation while allowing the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation.

Lannert et al. teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-

40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands, control variables and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3); and generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16).

8.3 As per the Applicants' argument that "Event if the systems in Young and Weitz were combined with the system in Lannert, the combination would fail to teach or suggest the claimed invention since the Lannert system does not include reporting components that communicate with a simulation of a model during an execution of the simulation", the examiner directs applicants' attention to Paragraph 8.2 above where the communication between reporting components and simulation is discussed.

8.4 As per the Applicants' argument that "In Lannert, when a system dynamics model plays. the outputs are pulled by the engine and then passed to the simulation model and the Intelligent Coaching Agent (ICA); FIG. 47 illustrates that the values are only passed to the system dynamics

engine when an activity is completed; in contrast, the claimed invention includes generation of a report front report components during execution of the simulation; since the output is not passed to the engine until after an activity is completed, Lannert does not teach or suggest communication with a simulation of a model during execution of the simulation", the examiner respectfully disagrees.

Lannert et al. teaches user interface components configured to define an operation to bi-directionally communicate with a simulation of a model during an execution of the simulation (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; **the system dynamics model generates simulation results over time**, based on the parameters passed into it; when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27). Thus Lannert does simulation whenever the parameters are passed to it and returns the results for display and use in report generation. In a typical software implementation, report generation will be one task, user interface will be another task and simulation will be a third task. The computer processor can run only one task at a time. Therefore in all simulations, the simulation and report generation will be done one after another. The applicants' do not have any novelty in this, as such intermixing of tasks are well known in the simulation and software engineering filed.

8.5 As per the Applicants' argument that "Lannert, fails to provide the element of bi-directional communication with a simulation of a model during an execution of a simulation; Output values of cells are only available after the simulation(s) have completed; even combining the Young element of report generation with the Lannert system, the reports could only be generated after the simulation runs, because only then will the output became available; therefore, Lannert fails to teach or suggest communication with a simulation during an execution of a simulation", the examiner directs applicants' attention to Paragraphs 8.2 and 8.4 above where the communication between reporting components and simulation is discussed.

8.6 As per the Applicants' argument that "Since Lannert also fails to teach or suggest each and every element of the claimed invention, the combination of Young and Lannert also fails to teach or suggest the claimed invention", the examiner respectfully disagrees. It is not necessary for Lannert to teach each and every element of the claimed invention. The Examiner has shown that **Young et al., Weitz** and **Lannert et al.** teach each and every element of the claimed invention.

8.7 As per the Applicants' argument that "Lannert fails to teach or suggest a generation engine initiating reporting components, configured to perform the operation of issuing commands; ... passing an input to a simulation and receiving an output after simulation does not teach or suggest initiating a component, which modifies an operational parameter or a condition of the simulation; the claimed invention discusses initiating a reporting component, which is configured to perform the operation of issuing commands to the computing environment in order

to modify or reconfigure, extract data from or request data about an operational parameter and an initial condition of the simulation of the model; Lannert fails to teach or suggest the claimed invention because Lannert does not hove an element configured to issue commands to manipulate operational parameters; Lannert provides feedback after an element (the ICA) analyzes inputs to a simulation and outputs from a simulation, but the feedback does not issue any commands regarding an operational parameter or of an initial condition of the simulation of the model", the examiner respectfully disagrees.

Young et al. teaches at least one of the reporting components configured to define an operation to bi-directionally communicate with a model building technical computing environment (Page 281, CL1, Para 3, L1 to Para 4, L5; SciNapse implemented in Mathematica; the Mathematica has two parts- kernel and Mathematica Notebooks; Kernel has a large set of functions (It is inherent that the kernel functions are used for simulation); Mathematica Notebooks provide communication between the user and the kernel (It is inherent that the communication is provided by passing command, parameters and initial conditions to the kernel); the notebooks have document writing capabilities; the author has control over how the text is evaluated by the kernel; Page 280, CL1, Para 1, L5-7 and L13-19; the reports are generated by the instances created by a run of the system; Page 280, CL2, Para 1, L5-12; instances are created by the system while performing the tasks), as that allows automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3). **Young et al.** does not expressly teach that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters

and an initial condition of the simulation of the model. **Lannert et al.** teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to the computing environment in order to modify one of an operational parameters and an initial condition of the simulation of the model (CL11, L24-38; Fig. 2; Fig. 47; CL93, L47-64; Passing inputs to the simulation and receiving outputs from the simulation; CL94, L17-18; CL94, L23-25; CL94, L38-40; CL94, L55-60; the spread sheets support all simulation models; the spread sheets make calculations on all time interval data that is received from the system dynamics model, which allows the ability to show trends; the system dynamics model generates simulation results over time, based on the parameters passed into it (the parameters could include commands and initial conditions); when the system dynamics model runs, the range of data received over time can be used to create trend graphs), as that allows the user to control the simulation by passing inputs into the simulation and receiving outputs from the simulation (CL11, L25-27) and as per **Young et al.**, automatic document production and producing different kinds of documents from the same information (Page 280, CL2, Para 2, L1-3); and generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16).

8.8 As per the Applicants' argument that "Skidmore does not teach or suggest the use of the communication server to issue commands to a simulation model of any type, or to otherwise directly or indirectly modify or reconfigure other elements; ... Skidmore fails to teach or suggest an element of issuing commands to the computing environment to simulate a model", the examiner respectfully disagrees.

Skidmore et al. teaches that the generation engine initiates one of the reporting components configured to perform the operation of issuing commands to simulate the model (Page 6, Para 3), as that allows the user to control execution and recording of the computations in the simulation model (Page 5, Para 5) and as per **Young et al.**, generating reports from the instances created by a run of the simulation system (Page 280, CL1, Para 1, L15-16).

8.9 As per the Applicants' argument that "Skidmore teaches away from modifying any existing electronic notebook tool, such as the one described in Young. Therefore, there is no suggestion or motivation in the teachings of the references or in the knowledge of one ordinarily skilled in the art, at the time of the claimed invention, to combine these references", the examiner respectfully disagrees.

The Young reference deals with software specification, simulation model building and report generation using software tools. The Lannert reference teaches simulation and performance reporting using user interface software tools. The Skidmore reference teaches documenting the simulation results in notebooks (files) using software tools. One of ordinary skill in the art will be able to combine the tools provided by the three references to achieve his objective of documenting the simulation results during simulation runs, using the motivations provided in the references and shown by the Examiner.

Conclusion

ACTION IS FINAL

9 Applicants' arguments with respect to claim rejections under 35 USC § 103 (a) are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska, can be reached on 571-272-3716. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Thangavelu
Art Unit 2123
April 12, 2005

KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER